



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-3713; Directorate Identifier 2015-NE-23-AD]

RIN 2120-AA64

Airworthiness Directives; Engine Alliance Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Engine Alliance (EA) GP7270 turbofan engines. This proposed AD was prompted by reports of the installation of non-conforming honeycomb seals in the high-pressure compressor (HPC) adjacent to the HPC rotor stage 2 to 5 spool and stage 7 to 9 spool. This proposed AD would require removal and replacement of the affected HPC rotor stage 2 to 5 and stage 7 to 9 spools. We are proposing this AD to prevent failure of the HPC rotor stage 2 to 5 and stage 7 to 9 spools, which could lead to uncontained engine failure and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Engine Alliance, 400 Main St., East Hartford, CT 06108, M/S 169-10, phone: 800-565-0140; email: help24@pw.utc.com; website: www.engineallianceportal.com. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3713; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Martin Adler, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; email: martin.adler@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2015-3713; Directorate Identifier 2015-NE-23-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We learned from the manufacturer that non-conforming honeycomb seals were installed in the affected HPCs adjacent to the HPC rotor stage 2 to 5 spools and stage 7 to 9 spools. The honeycomb seals in the HPC were machined to an incorrect radial height which resulted in reduced clearances between the honeycomb and the rotating spools. This error could lead to cracks on the spools prior to reaching their full life. This condition, if not corrected, could result in failure of the HPC rotor stage 2 to 5 and stage 7 to 9 spools, which could lead to uncontained engine failure, and damage to the airplane.

Relevant Service Information under 1 CFR Part 51

Engine Alliance has issued EA Service Bulletin (SB) No. EAGP7-72-327, dated July 21, 2015; and SB No. EAGP7-72-328, dated July 21, 2015. The SBs describe procedures for removal and replacement of HPC rotor stage 2 to 5 spools and HPC rotor stage 7 to 9 spools, respectively. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this document.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removal and replacement of the affected HPC rotor stage 2 to 5 and stage 7 to 9 spools.

Costs of Compliance

We estimate that this proposed AD affects zero engines installed on airplanes of U.S. registry. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$0.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Engine Alliance: Docket No. FAA-2015-3713; Directorate Identifier 2015-NE-23-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Engine Alliance (EA) GP7270 turbofan engines with one or both of the following installed:

(1) a high-pressure compressor (HPC) rotor stage 2 to 5 spool, part number (P/N) 382-104-807-0, with a serial number (S/N) listed in EA Service Bulletin (SB) No. EAGP7-72-327, dated July 21, 2015; or

(2) an HPC rotor stage 7 to 9 spool, P/N 2031M90G04, 2031M90G05, or 2031M90G07, with an S/N listed in EA SB No. EAGP7-72-328, dated July 21, 2015.

(d) Unsafe Condition

This AD was prompted by reports of the installation of non-conforming honeycomb seals in the HPC adjacent to the HPC rotor stage 2 to 5 spool and stage 7 to 9 spool. We are issuing this AD to prevent failure of the HPC rotor stage 2 to 5 spools and stage 7 to 9 spools, which could lead to uncontained engine failure and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done. Within 30 days after the effective date of this AD or before accumulating 2,100 engine cycles since the last disassembly of the compressor module of the engine, whichever occurs later:

(1) For engines with an HPC rotor stage 2 to 5 spool, P/N 382-104-807-0, installed with a S/N listed in EA SB No. EAGP7-72-327, dated July 21, 2015, do the following:

(i) Remove the HPC rotor stage 2 to 5 spool from service and replace with a part eligible for installation.

(ii) Remove and replace the honeycomb seals on the HPC stage 5 vanes.

(2) For engines with an HPC rotor stage 7 to 9 spool, P/N 2031M90G04, 2031M90G05, or 2031M90G07 installed with an S/N listed in EA SB No. EAGP7-72-328, dated July 21, 2015, do the following:

(i) Remove the HPC rotor stage 7 to 9 spool from service and replace with a part eligible for installation.

(ii) Remove and replace the honeycomb seals on the HPC stage 6, stage 7, and stage 8 vanes.

(f) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(g) Related Information

(1) For more information about this AD, contact Martin Adler, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; email: martin.adler@faa.gov.

(2) EA SBs No. EAGP7-72-327, dated July 21, 2015; and No. EAGP7-72-328, dated July 21, 2015 can be obtained from EA using the contact information in paragraph (g)(3) of this proposed AD.

(3) For service information identified in this AD, contact Engine Alliance, 400 Main St., East Hartford, CT 06108, M/S 169-10, phone: 800-565-0140; email: help24@pw.utc.com; website: www.engineallianceportal.com.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on October 16, 2015.

Colleen M. D'Alessandro,
Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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